



Remedial Investigation / Feasibility Study

Progress Report #19
May 2018

June 20, 2018

Prepared for:
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Appendix

- A. Project Schedule

1. Introduction

This Progress Report (Report) prepared by Roux Environmental Engineering and Geology, D.P.C. (Roux) presents a summary of activities completed during the period of May 2018, on behalf of Columbia Falls Aluminum Company, LLC (CFAC), for the Remedial Investigation / Feasibility Study (RI/FS) being performed at the Anaconda Aluminum Co. Columbia Falls Reduction Plant (a/k/a Columbia Falls Aluminum Plant) generally located near Columbia Falls in Flathead County, Montana ("Site"). The RI/FS is being conducted pursuant to the Administrative Settlement Agreement and Order on Consent (AOC) dated November 30, 2015 between CFAC and the United States Environmental Protection Agency (USEPA) (CERCLA Docket No. 08-2016-0002).

This Report provides a description of the actions that have been taken to comply with the AOC during the reporting period and describes work planned for the upcoming reporting period, including an updated project schedule as Appendix A. This report also provides updates regarding the availability of any new, validated sampling data received by CFAC during the reporting period. Lastly, this Report provides an update on any scope revisions and/or project delays encountered and solutions implemented to address any changes.

2. Work Completed

This Section provides a summary of activities completed or ongoing in May 2018.

2.1 Approval of the Groundwater and Surface Water Data Summary Report

The results of all four rounds of groundwater and surface water samples collected during the Phase I Site Characterization were included in a Groundwater and Surface Water Data Summary Report (GW/SW Data Summary Report) submitted to USEPA and MDEQ on November 17, 2017. CFAC/Roux received comments on the GW/SW Data Summary Report from USEPA on January 4, 2018, and comments from MDEQ via email on January 15, 2018. USEPA, MDEQ, and CFAC/Roux reviewed the comments during a technical meeting at the Site on January 16 and 17, 2018. CFAC/Roux responses to the comments and a revised GW/SW Data Summary Report were submitted to USEPA and MDEQ on February 9, 2018. CFAC/Roux received additional comments from USEPA via e-mail correspondence on February 28, 2018. Based on the e-mail correspondence, the document was revised to incorporate the additional comments and was considered approved by USEPA. CFAC/Roux responses to the additional comments from USEPA and the Final GW/SW Data Summary Report was submitted on March 16, 2018. USEPA provided a letter approving the report as final on May 17, 2018.

2.2 Submittal of Revised Baseline Risk Assessment Work Plans

Roux and their risk assessment subcontractor, EHS Support, LLC (EHS Support) submitted the draft Baseline Human Health Risk Assessment Work Plan (BHHRA WP) and Baseline Ecological Risk Assessment Work Plan (BERA WP) to USEPA/MDEQ on November 17, 2017. CFAC/Roux received comments on the BHHRA WP and BERA WP from USEPA on January 4 and 16, 2018. MDEQ submitted their comments on the BHHRA WP and BERA WP to USEPA on January 9, 2018, and CFAC/Roux received their comments on January 10, 2018.

USEPA, MDEQ, and CFAC/Roux reviewed the comments during a technical meeting at the Site on January 16 and 17, 2018. During the meeting it was determined that CFAC/Roux will submit interim risk assessment deliverables to USEPA/MDEQ for review and comment to provide additional details regarding the risk assessment assumptions and methodology beyond that included in the BHHRA WP and BERA WP.

CFAC/Roux/EHS Support responses to the comments on the BERA WP and BHHRA WP were submitted to USEPA and MDEQ on February 13, 2018. The specific items to be revised in the BERA WP and BHHRA WPs, the items to be included in the interim deliverables, and the anticipated schedule for submission were identified in the responses to USEPA/MDEQ comments. Following receipt of the response to comments, USEPA requested via email correspondence to Roux on April 17, 2018, that Roux prepare the revised BERA WP and BHHRA WP for final approval. The work plans were revised to incorporate the multiple rounds of comments and Roux submitted the revised BHHRA WP and the BERA WP in red-line tracked changes to USEPA/MDEQ on May 25, 2018. Roux will finalize the work plans pending approval from USEPA in the next reporting period.

2.3 Approval of Phase II Sampling and Analysis Plan

The Phase II Site Characterization SAP was prepared by CFAC/Roux to present the scope of work for the next phase of investigation at the Site. The purpose of the Phase II Site Characterization is to supplement the findings from the Phase I Site Characterization and to address the data gaps identified in the BHHRA

WP and BERA WP. The data collected as part of the Phase I Site Characterization and the Phase II Site Characterization will be utilized to complete the risk assessment and feasibility study for the Site.

The draft Phase II SAP was submitted to USEPA and MDEQ for review and comment on February 28, 2018. The Phase II SAP consists of a Field Sampling Plan (FSP) that describes the data gathering and sampling activities and associated fieldwork procedures for the Phase II Site Characterization; a Quality Assurance Project Plan (QAPP) that describes the policy, organization, functional activities, and quality assurance (QA) and quality control (QC) protocols necessary to achieve the data quality objectives (DQOs) of the Phase II Site Characterization; and an updated project schedule outlining each phase of work for the Phase II Site Characterization.

CFAC/Roux received initial comments on the draft Phase II SAP from USEPA and MDEQ on April 4, 2018. CFAC/Roux received additional comments from USEPA's risk assessors on April 12, 2018. CFAC/Roux responses to the initial comments on the draft Phase II SAP were submitted to USEPA and MDEQ on April 18, 2018. A conference call was held on April 19, 2018 with USEPA, MDEQ, CFAC, CDM Smith and Roux to discuss the responses. On April 20, 2018, the USEPA provided CFAC/Roux interim approval via email to proceed with the Phase II Site Characterization field activities, as agreed upon in the April 19, 2018 conference call referenced above, while the Phase II SAP was finalized. CFAC/Roux documented the discussion and circulated Meeting Minutes to the project team on April 24, 2018. CFAC/Roux responses to the additional comments and responses discussed on the conference call were provided to USEPA on April 25, 2018.

The Phase II Site Characterization field work began with Site reconnaissance activities on April 25, 2018. The final Phase II SAP was submitted to USEPA on May 3, 2018. USEPA approved the Phase II SAP as final in an approval letter dated May 17, 2018.

2.4 Submittal of Draft Background Sampling and Analysis Plan

As described in the Phase II SAP, CFAC/Roux is conducting a Background Investigation as part of the Phase II Site Characterization. A soil, sediment, and surface water sampling program will be conducted to characterize the background concentrations of COPCs and COPECs in areas outside the Site that are unaffected by historic Site operations or other readily identifiable anthropogenic sources of contamination.

In an effort to select background reference areas for the Background Investigation, Roux conducted reconnaissance of potential background reference areas from May 6, 2018 through May 8, 2018, and May 10, 2018. CFAC/Roux submitted the Draft Background Investigation Sampling and Analysis Plan (Background SAP) to USEPA/MDEQ for review on May 25, 2018. USEPA provided comments on the surface water sampling scope of the Background SAP via e-mail correspondence on May 31, 2018. Comments on the surface water sampling scope were expedited in an effort to resolve the comments and complete the first round of background sampling during the high-water season. Roux is preparing responses to USEPA comments on the surface water scope and will submit responses during the next reporting period such that USEPA can conditionally approve the surface water scope and the sampling can proceed. USEPA will provide additional comments on the remainder of the Background SAP scope in the next reporting period. Pending receipt of the additional comments, Roux will prepare responses for the additional comments and submit responses to USEPA in the next reporting period.

2.5 Phase II Site Characterization Field Activities

This section describes the Phase II Site Characterization field activities that were completed during the reporting period of May 2018. All field locations, sample intervals and selected analyses were completed in accordance with the Phase II SAP. Following the completion of the activities described below, Roux and Cascade Drilling demobilized from the Site.

2.5.1 Monitoring Well Installation

Eight monitoring well locations were drilled by Cascade Drilling and eight monitoring wells were installed in May 2018. Table 1 provides a summary of monitoring wells installed as part of the Phase II Site Characterization through May 2018.

Each monitoring well was installed utilizing roto-sonic drilling methods to advance casing and collect core samples for geologic logging and laboratory analysis. Soil sampling associated with the completion of each boring is provided in Table 2. In the process of sonic coring, the holes were temporarily cased with a 6-inch nominal, inner diameter casing. Monitoring well riser and screen were placed down the open hole and a sand filter pack was placed around the screen. The annulus above the filter pack was sealed with a bentonite seal. Monitoring well casings were constructed of 2-inch diameter Schedule 40 polyvinyl chloride (PVC). Monitoring well screens were constructed of 2-inch diameter, machine slot schedule 40 PVC, with screen slot size of 0.020 and were flush-threaded onto the casings. Surface completion of each well consisted of a protective stick-up enclosure, a locking J-plug and an exterior lockable metal cover. Final boring logs for each monitoring well will be included in the Phase II Site Characterization Data Summary Report.

2.5.2 Monitoring Well Development

Roux and Cascade Drilling developed all eight newly-constructed monitoring wells in May 2018. Roux field personnel oversaw the development. The wells were developed utilizing surge and pump methods. During pumping, Roux field personnel monitored field parameters, including depth to water, flow rate, turbidity, pH, temperature, dissolved oxygen (DO), specific conductivity, and oxidation reduction potential (ORP). Wells were typically pumped until the turbidity reached a value of 10 Nephelometric Turbidity Units (NTUs) or the well was pumped for two hours. Field forms from development will be provided in the Phase II Site Characterization Data Summary Report.

2.5.3 Soil Borings and Soil Sampling

Roux and Cascade Drilling completed 90 soil borings in May 2018. Soil borings were completed utilizing hand tools, the direct push Geoprobe™ drill rig, and the sonic drill rig. A total of 315 soil samples were collected by Roux field personnel from soil boring locations. Sample intervals and laboratory analyses were conducted in accordance with the Phase II SAP. Table 2 provides a summary of the soil borings completed and the associated soil samples collected. Final boring logs for each soil boring and field forms for soil samples will be provided in the Phase II Site Characterization Data Summary Report.

As part of the soil boring scope of work, Roux and Cascade Drilling completed collection of soil samples within 12 decision units in the Operational Area using the incremental sampling method (ISM). All ISM soil samples were completed utilizing the Geoprobe™ drilling technique. Surface and shallow subsurface ISM soil samples were collected from each decision unit. A list of the samples collected is provided in Table 2.

2.6 Field Modifications

One field modification was submitted to USEPA in May 2018 summarizing changes to the Phase II SAP. Prior to implementation, the field modification was discussed with and verbally approved by USEPA. The field modification included the following information:

- Modification #1 (May 16, 2018) – Based on the ongoing demolition of the Main Plant building and potrooms, proposed soil borings CFSB-159 and 160 will be relocated outside of the basement, just east of Potroom #10 and the former building. An additional Sonic soil boring will be advanced in the courtyard between Potrooms #9 and #10.

Written approval of Modification #1 by USEPA is pending.

2.7 Weekly Reporting, Project Conference Calls, and Project Meetings

An onsite meeting was held on May 8, 2018 with USEPA, MDEQ, CFAC, and Roux to discuss the current project status, the Phase II field work update, and to prepare for the Community Liaison Panel Meeting and Site Tour. A Community Liaison Panel (CLP) / Public Meeting was held on May 9, 2018 at the Site. Representatives from the CLP, USEPA, MDEQ, Glencore, CFAC, Roux, and Ann Green Communications attended the meeting. The meeting included a tour of the CFAC facility to share demolition progress and included a visit to one of the drilling locations and associated monitoring well installation locations being advanced as part of the Phase II Site Characterization.

Project conference calls will continue to be conducted throughout implementation of the Phase II Site Characterization to discuss project progress and schedule. Additionally, weekly reports were submitted on May 6, 2018, May 13, 2018, May 20, 2018, and May 27, 2018 and will continue to be submitted to USEPA during field activities.

3. Work Planned for Next Reporting Period

This section summarizes the work planned for the next reporting period of June 2018.

3.1 Baseline Risk Assessment Work Plans

As described in Section 2.2, the BERA WP and BHHRA WP were revised to incorporate the multiple rounds of comments and Roux submitted the work plans in red-line tracked changes to USEPA/MDEQ on May 25, 2018. CFAC/Roux will finalize the work plans pending approval from USEPA in the next reporting period.

3.2 Background Sampling and Analysis Plan

As described in Section 2.5, CFAC/Roux submitted the Draft Background Investigation Sampling and Analysis Plan (Background SAP) to USEPA/MDEQ for review on May 25, 2018. USEPA provided comments on the surface water sampling scope of the Background SAP via e-mail correspondence on May 31, 2018. Roux is preparing responses to USEPA comments on the surface water scope and will submit responses during the next reporting period such that USEPA can conditionally approve the surface water scope and the sampling can proceed. USEPA will provide additional comments on the remainder of the Background SAP scope in the next reporting period. Pending receipt of the additional comments, Roux will prepare responses for the additional comments and submit responses to USEPA in the next reporting period.

3.3 Ongoing Phase II Site Characterization Field Activities

Collection of soil, groundwater, surface water, sediment, and sediment porewater associated with the Phase II Site Characterization scope of work will continue in June 2018, in accordance with procedures described in the Phase II SAP. Future progress reports will discuss progress of the scope of work, including a summary of samples collected, schedule, and any deviations from the Phase II SAP.

4. Database Updates

No validated data was received in May 2018 for the CFAC RI/FS and therefore no validated data was uploaded to the CFAC RI/FS database by Roux.

Validation of laboratory data from the Phase II Site Characterization will be performed by Laboratory Data Consultants (LDC) as a subcontractor to Roux. Validated data will continue to be imported into the project database and managed in accordance with the data management procedures outlined in Section 7.10 of the Phase II SAP. Future progress reports will discuss updates to the project database.

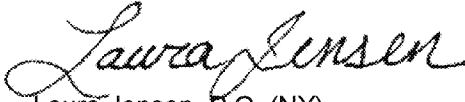
5. Scope/Schedule Revisions

An updated project schedule is attached to this Progress Report in Appendix A. The schedule was updated to reflect progress based on RI/FS activities completed through May 2018. A schedule for the Phase II Site Characterization was included in the Phase II SAP, and will be provided to USEPA routinely throughout the RI/FS in future progress reports.

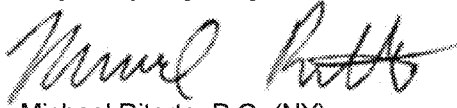
On behalf of CFAC, Roux will continue to pursue the overall objectives described in the AOC and the RI/FS Work Plan. Roux will continue to inform the USEPA of completed and upcoming activities pursuant to the requirements of the AOC in future progress reports.

Respectfully submitted,

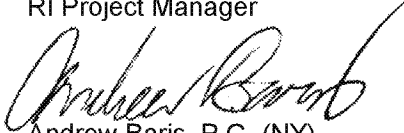
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TABLES

Table 1. Monitoring Wells Installed in May 2018

Table 2. Soil Samples Collected in May 2018

Table 1. Monitoring Wells Installed in May 2018
Phase II Site Characterization, Columbia Falls Aluminum Company, Montana

Well Type	Well Location ID	Closest Site Feature	Date Started	Date Completed	Boring Depth (ft)	Well Depth (ft)	Well Screen Top (ft-bls)	Well Screen Bottom (ft-bls)
Water Table Monitoring Well	CFMW-057b	Aluminum City	5/7/2018	5/7/2018	40	40	30	40
Water Table Monitoring Well	CFMW-065	Western Undeveloped Area	5/2/2018	5/2/2018	37	37	27	37
Water Table Monitoring Well	CFMW-066	Industrial Landfill	4/30/2018	4/30/2018	35	35	25	35
Water Table Monitoring Well	CFMW-067	Industrial Landfill	5/1/2018	5/1/2018	35	35	25	35
Water Table Monitoring Well	CFMW-068	Aluminum City	5/10/2018	5/10/2018	85	85	75	85
Water Table Monitoring Well	CFMW-069	Aluminum City	5/8/2018	5/8/2018	55	55	45	55
Water Table Monitoring Well	CFMW-070	Fueling Area	5/16/2018	5/16/2018	60	60	50	60
Water Table Monitoring Well	CFMW-071	Rod Mill	5/3/2018	5/5/2018	115	95	95	105

Table 2. Soil Samples Collected in May 2018
Phase II Site Characterization, Columbia Falls Aluminum Company, Montana

Location ID	Date Sampled	Surface (0-0.5 ft bls)	Shallow (0.5-2 ft bls)	Intermediate (6-8 ft bls)	Intermediate (10-12 ft bls)	Deep (15-17 ft bls)	Deep (20-22 ft bls)	Above Water Table (Interval Varies)	In Screened Interval (Interval Varies)	Notes
CFISS-001	5/23/2018	X	X							
CFISS-003	5/22/2018	X	X							
CFISS-004	5/19/2018	X	X							
CFISS-005	5/22/2018	X	X							
CFISS-007	5/17/2018	X	X							
CFISS-009	5/21/2018	X	X							
CFISS-010	5/21/2018	X	X							
CFISS-011	5/19/2018	X	X							
CFISS-012	5/18/2018	X	X							
CFISS-013	5/17/2018	X	X							
CFISS-014	5/16/2018	X	X							
CFISS-015	5/15/2018	X	X							
CFISS-REP01-SO	5/15/2018	X	X							
CFISS-REP02-SO	5/15/2018	X	X							
CFISS-REP03-SO	5/15/2018	X	X							
CFISS-REP04-SO	5/15/2018	X	X							
CFISS-REP05-SO	5/19/2018	X	X							
CFISS-REP06-SO	5/19/2018	X	X							
CFISS-REP07-SO	5/19/2018	X	X							
CFISS-REP08-SO	5/19/2018	X	X							
CFISS-REP09-SO	5/19/2018	X	X							
CFISS-REP10-SO	5/19/2018	X	X							
CFISS-REP11-SO	5/19/2018	X	X							
CFISS-REP12-SO	5/19/2018	X	X							
CFISS-REP13-SO	5/23/2018	X	X							
CFISS-REP14-SO	5/23/2018	X	X							
CFISS-REP15-SO	5/23/2018	X	X							
CFISS-REP16-SO	5/23/2018	X	X							
CFLP-001	5/5/2018	X	X							
CFLP-002	5/5/2018	X	X							
CFLP-003	5/5/2018	X	X							
CFLP-004	5/5/2018	X	X							
CFLP-005	5/5/2018	X	X							
CFLP-006	5/5/2018	X	X							
CFMW-057b	5/7/2018							X (28-30)	X (35-37)	
CFMW-065	5/2/2018	X	X		X			X (25-27)	X (30-32)	
CFMW-067	5/1/2018	X	X		X			X (23-25)	X (30-33)	
CFMW-068	5/10/2018	X	X		X			X (73-75)	X (78-80)	
CFMW-069	5/8/2018	X	X		X			X (43-45)	X (51-53)	
CFMW-070	5/16/2018	X	X		X			X (48-50)	X (55-57)	
CFMW-071	5/3/2018	X	X		X					
CFMW-071	5/5/2018							X (93-95)	X (98-100)	

Table 2. Soil Samples Collected in May 2018
Phase II Site Characterization, Columbia Falls Aluminum Company, Montana

Location ID	Date Sampled	Surface (0-0.5 ft bls)	Shallow (0.5-2 ft bls)	Intermediate (6-8 ft bls)	Intermediate (10-12 ft bls)	Deep (15-17 ft bls)	Deep (20-22 ft bls)	Above Water Table (Interval Varies)	In Screened Interval (Interval Varies)	Notes
CFSB-154	5/15/2018		X (0.5-2.5)	X (5.5-7.5)	X (10.5-12.5)					
CFSB-155	5/15/2018		X (0.5-2.5)	X (5.5-7.5)	X (10.5-12.5)					
CFSB-156	5/15/2018		X (0.5-2.5)	X (5.5-7.5)	X (10.5-12.5)					
CFSB-157	5/12/2018		X (0.5-2.5)	X (5.5-7.5)	X (10.5-12.5)					
CFSB-158	5/12/2018		X (0.5-2.5)	X (5.5-7.5)	X (10.5-12.5)					
CFSB-159	5/11/2012				X (12-14)	X (17-19)	X (22-24)			
CFSB-160	5/11/2012				X (12-14)	X (17-19)	X (22-24)			
CFSB-161	5/12/2018		X (0.5-2.5)	X (5.5-7.5)	X (12.5-14.5)					
CFSB-162	5/12/2018		X (0.5-2.5)	X (5.5-7.5)	X (10.5-12.5)					
CFSB-163	5/14/2018				X (12-14)	X (17-19)	X (23-25)			
CFSB-164	5/14/2018				X (12-14)	X (17-19)	X (22-24)			
CFSB-165	5/14/2018				X (12-14)	X (17-19)	X (23-25)			
CFSB-166	5/14/2018				X (12-14)	X (17-19)	X (22-24)			
CFSB-167	5/15/2018		X (1-3)	X		X				
CFSB-221	5/7/2018	X	X							
CFSB-222	5/7/2018	X	X							
CFSB-223	5/7/2018	X	X							
CFSB-224	5/7/2018	X	X							
CFSB-225	5/7/2018	X	X							
CFSB-226	5/7/2018	X	X							
CFSB-227	5/7/2018	X	X							
CFSB-228	5/7/2018	X	X							
CFSB-229	5/7/2018	X	X							
CFSB-230	5/7/2018	X	X							
CFSB-240	5/10/2018	X	X		X					
CFSB-241	5/5/2018	X	X		X					
CFSB-242	5/10/2018	X	X		X					
CFSB-243	5/10/2018	X	X		X					
CFSB-244	5/9/2018	X	X		X	X				
CFSB-245	5/8/2018	X	X		X					
CFSB-246	5/9/2018	X	X		X					
CFSB-247	5/9/2018	X	X		X					
CFSB-248	5/1/2018	X	X		X					
CFSB-249	5/1/2018	X	X		X					
CFSB-250	5/1/2018	X	X		X					
CFSB-251	5/1/2018	X	X		X					
CFSB-252	5/1/2018	X	X		X					
CFSB-253	5/1/2018	X	X		X					
CFSB-260	5/5/2018	X	X		X					
CFSB-261	5/2/2018	X	X		X					
CFSB-262	5/2/2018	X	X	X	X					
CFSB-263	5/2/2018	X	X	X	X					

Table 2. Soil Samples Collected in May 2018
Phase II Site Characterization, Columbia Falls Aluminum Company, Montana

Location ID	Date Sampled	Surface (0-0.5 ft bls)	Shallow (0.5-2 ft bls)	Intermediate (6-8 ft bls)	Intermediate (10-12 ft bls)	Deep (15-17 ft bls)	Deep (20-22 ft bls)	Above Water Table (Interval Varies)	In Screened Interval (Interval Varies)	Notes
CFSB-264	5/3/2018	X	X	X	X					
CFSB-265	5/3/2018	X	X	X	X					
CFSB-266	5/10/2018	X	X		X					
CFSB-267	5/10/2018	X	X		X					
CFSB-268	5/10/2018	X	X		X					
CFSB-269	5/9/2018	X	X		X					
CFSB-270	5/2/2018	X	X	X	X					
CFSB-271	5/2/2018	X	X		X					
CFSB-272	5/4/2018	X	X	X	X	X	X			
CFSB-273	5/4/2018	X	X	X	X	X	X			
CFSB-274	5/11/2012	X	X	X	X	X	X			
CFSB-275	5/11/2012	X	X	X	X	X	X			
CFSB-276	5/11/2012	X	X	X	X	X	X			
CFSB-277	5/3/2018	X	X	X	X	X	X			
CFSB-278	5/11/2012	X	X	X	X	X	X			
CFSB-279	5/8/2018	X	X	X	X	X				
CFSB-279	5/19/2018						X			
CFSB-280	5/8/2018	X	X	X						
CFSB-280	5/19/2018				X	X	X			
CFSB-281	5/4/2018	X	X	X	X	X	X			
CFSB-285	5/11/2012				X (12-14)	X (17-19)	X (22-24)			
CFSB-287	5/18/2018			X (8-10)	X (17-19)	X (20-22)	X (22-24)	X (30-32)	X (45-47)	

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APPENDIX A

Project Schedule

RI/FS Schedule Updated May 30, 2018

ID	Deliverable/Task Name	Duration	Start	Finish	Company	Predecessors	January 2016	February 2016	March 2016	April 2016	May 2016	June 2016	July 2016	August 2016	September 2016	October 2016	November 2016	December 2016	January 2017	February 2017	March 2017	April 2017	May 2017	June 2017	July 2017	August 2017	September 2017	October 2017	November 2017
1	AOC is executed by all parties	1 day	Mon 11/30/15	Mon 11/30/15	EPA/CFAC																								
2	Historical Records Review	160 days	Mon 2/8/16	Fri 9/16/16	Roux																								
3	X Draft Health and Safety Plan (HASP)	30 edays	Mon 11/30/15	Wed 12/30/15	Roux	1																							
4	X Final Health and Safety Plan (HASP)	25 days	Thu 12/31/15	Wed 2/3/16	Roux	3																							
5	Site is clear of Snow / Field Work Begins	1 day	Mon 4/4/16	Mon 4/4/16																									
6	Pre-Intrusive Task 1 - Site Reconnaissance	10 days	Mon 4/4/16	Fri 4/15/16	Roux	555																							
7	Pre-Intrusive Task 2 - Geophysical Survey	5 days	Mon 4/18/16	Fri 4/22/16	Roux	6																							
8	Pre-Intrusive Task 3 - Soil Gas Survey	7 days	Mon 4/18/16	Tue 4/26/16	Roux	755																							
9	SAP Addendum	75 days	Mon 4/18/16	Fri 7/29/16	Roux																								
10	X Draft SAP Addendum	40 days	Mon 4/18/16	Fri 6/10/16	Roux	6																							
11	EPA Review of Draft SAP Addendum	15 days	Mon 6/13/16	Fri 7/1/16	EPA	10																							
12	X Final SAP Addendum	20 days	Mon 7/4/16	Fri 7/29/16	Roux	11																							
13	Source Area Investigation - Phase I Site Characterization Field Activities	120 days	Mon 5/9/16	Fri 10/21/16	Roux/Hydrometrics																								
14	GPR Utility Mark-Outs	5 days	Mon 5/9/16	Fri 5/13/16	Roux																								
15	Clearing / Grading for Drill Rig Access	4 days	Wed 5/11/16	Mon 5/16/16	Roux																								
16	Sonic Rig 1	75 days	Mon 5/16/16	Fri 8/26/16	Roux	8FS+10 days																							
17	Sonic Rig 2	50 days	Mon 5/16/16	Fri 7/22/16	Roux	8FS+10 days																							
18	Geoprobe	20 days	Mon 5/16/16	Fri 6/10/16	Hydrometrics																								
19	Landfill GPR Survey Field Work	3 days	Mon 7/25/16	Wed 7/27/16	Roux																								
20	Test Fitting	5 days	Mon 8/15/16	Fri 8/19/16	Roux																								
21	Additional Monitoring Well redevelopment activities	10 days	Mon 10/10/16	Fri 10/21/16	Hydrometrics																								
22	Background Area Investigation	5 days	Mon 6/13/16	Fri 6/17/16	Hydrometrics	18																							
23	Operational Grid Area Investigation	30 days	Mon 6/20/16	Fri 7/29/16	Hydrometrics	22																							
24	Site-Wide Surface Water Sampling - Event 1	5 days	Mon 9/5/16	Fri 9/9/16	Roux/Hydrometrics	16FS+5 days																							
25	Site-Wide Groundwater Sampling - Event 1	15 days	Mon 9/12/16	Fri 9/30/16	Roux/Hydrometrics	24																							
26	Site-Wide Surface Water Sampling - Event 2	5 days	Mon 12/5/16	Fri 12/9/16	Roux/Hydrometrics	24SS+90 edays																							
27	Site-Wide Groundwater Sampling - Event 2	15 days	Mon 12/12/16	Fri 12/30/16	Roux/Hydrometrics	26																							
28	Site-Wide Surface Water Sampling - Event 3	5 days	Mon 3/13/17	Fri 3/17/17	Roux/Hydrometrics	27SS+90 edays																							
29	Site-Wide Groundwater Sampling - Event 3	15 days	Mon 3/20/17	Fri 4/7/17	Roux/Hydrometrics	28																							
30	Site-Wide Surface Water Sampling - Event 4	5 days	Mon 6/12/17	Fri 6/16/17	Roux/Hydrometrics	28SS+90 edays																							
31	Site-Wide Groundwater Sampling - Event 4	15 days	Mon 6/19/17	Fri 7/7/17	Roux/Hydrometrics	30																							
32	Investigation Derived Waste Management/Disposal	390 days	Mon 4/4/16	Fri 9/29/17	Roux	555																							
33	Phase 1 Site Characterization Data Summary Report	251 days	Mon 10/3/16	Mon 9/18/17	Roux																								
34	Data Validation Completion	35 days	Mon 10/3/16	Fri 11/18/16	Data Validator	25																							
35	X Draft Phase I Site Characterization Summary Report to EPA/MDEQ	71 days	Mon 11/21/16	Mon 2/27/17	Roux	34																							
36	EPA review of Draft Phase I Data Summary Report	30 days	Mon 3/6/17	Fri 4/14/17	EPA	35																							
37	X Response to EPA/MDEQ Comments on Draft Phase I Data Summary Report	100 days	Mon 4/17/17	Fri 9/1/17	Roux/EPA	36																							
38	X Final Submission of Phase I Summary Report to EPA/MDEQ	10 days	Tue 9/5/17	Mon 9/18/17	Roux	37																							
39	Screening Level Ecological Risk Assessment (SLERA)	361 days	Mon 5/2/16	Mon 9/18/17	Roux																								
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43	X Response to EPA/MDEQ Comments on Draft SLERA Summary Report	100 days	Mon 4/17/17	Fri 9/1/17	Roux/EPA	42																							
44	X Final Submission of SLERA Report to EPA/MDEQ	10 days	Tue 9/5/17	Mon 9/18/17	Roux	43																							
45	2017 Additional Field Activities	85 days	Mon 4/17/17	Fri 8/11/17	Roux																								
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47	Pneumatic Slug Testing	15 days	Mon 7/10/17	Fri 7/28/17	Roux	31																							
48	Asbestos Landfill Soil Sampling	10 days	Mon 7/31/17	Fri 8/11/17	Roux/Hydrometrics	47																							
49	Groundwater and Surface Water Sampling Data Summary Report	101 days	Mon 7/10/17	Mon 11/27/17	Roux																								
50	Validation of Round 4 sampling data	25 days	Mon 7/10/17	Fri 8/11/17	Data Validator	31																							
51	X GW/SW Summary Report to EPA/MDEQ	76 days	Mon 8/14/17	Mon 11/27/17	Roux	50																							
52	Baseline Human Health Risk Assessment Work Plan	184 days	Mon 9/18/17	Fri 6/1/18	Roux																								
53	X Draft BHHRA Work Plan to EPA/MDEQ	60 edays	Mon 9/18/17	Fri 11/17/17	Roux/EHS Support	38																							
54	EPA review of Draft BHHRA Work plan	35 days	Mon 11/20/17	Fri 1/5/18	EPA	58																							
55	X Response to EPA/MDEQ Comments on BHHRA Work Plan	70 days	Mon 1/8/18	Fri 4/13/18	Roux	54																							
56	X Final Submission of BHHRA WP to EPA/MDEQ	35 days	Mon 4/16/18	Fri 6/1/18	Roux	55																							
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62	Phase II Remedial Investigation Sampling and Analysis Plan	117 days	Tue 11/28/17	Wed 5/9/18	Roux																								
63	X Draft Phase II Sampling and Analysis Plan to EPA/MDEQ	67 days	Tue 11/28/17	Wed 2/28/18	Roux	51																							
64	EPA review of draft Phase II Sampling and Analysis Plan	25 days	Thu 3/1/18	Wed 4/4/18	EPA	63																							
65	X Response to EPA/MDEQ Comments on Phase II Sampling and Analysis Plan	15 days	Thu 4/5/18	Wed 4/25/18	Roux	64																							
66	X Final Phase II Sampling and Analysis Plan	10 days	Thu 4/26/18	Wed 5/9/18	Roux	65																							
67	South Percolation Pond Expedited Risk Assessment	115 days	Mon 10/30/17	Fri 4/6/18	Roux																								
68	South Percolation Pond Risk Expedited Risk Assessment Field Activities	10 days	Mon 10/30/17	Fri 11/10/17	Roux																								
69	Validation of South Pond Data	25 days	Mon 11/13/17	Fri 12/15/17	Data Validator	68																							
70	Completion of South Pond Risk Assessment Tech Memo	80 days	Mon 12/18/17	Fri 4/6/18	Roux/EHS Support	69																							
71	Phase II Remedial Investigation	131 days	Wed 4/25/18	Tue 10/23/18	Roux																								
72	Site Reconnaissance	3 days	Wed 4/25/18	Fri 4/27/18	Roux																								
73	Soil Borings with Geoprobe	15 days	Mon 4/30/18	Fri 5/18/18	Roux	72																							

CFAC RI/FS Schedule Updated May 30, 2018																													
ID	Deliverable/Task Name	Duration	Start	Finish	Company	Predecessors	November 2017	December 2017	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018	November 2018	December 2018	January 2019	February 2019	March 2019	April 2019	May 2019	June 2019	July 2019	August 2019	September 2019
1	AOE is executed by all parties	1 day	Mon 11/30/15	Mon 11/30/15	EPA/CFAC																								
2	Historical Records Review	160 days	Mon 2/8/16	Fri 9/16/16	Roux																								
3	X Draft Health and Safety Plan (HASP)	30 edays	Mon 11/30/15	Wed 12/30/15	Roux	1																							
4	X Final Health and Safety Plan (HASP)	25 days	Thu 12/31/15	Wed 2/3/16	Roux	3																							
5	Site is clear of Snow / Field Work Begins	1 day	Mon 4/4/16	Mon 4/4/16																									
6	Pre-Intrusive Task 1 - Site Reconnaissance	10 days	Mon 4/4/16	Fri 4/15/16	Roux	555																							
7	Pre-Intrusive Task 2 - Geophysical Survey	5 days	Mon 4/18/16	Fri 4/22/16	Roux	6																							
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